



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/363,733	07/30/1999	BYOUNG-JO J. KIM		8486

7590 12/29/2006  
SAMUEL H DWORETSKY  
AT&T CORP  
P O BOX 4110  
MIDDLETOWN, NJ 07748

EXAMINER
----------

SHAH, CHIRAG G

ART UNIT	PAPER NUMBER
----------	--------------

2616

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/29/2006	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

09/363,733

Applicant(s)

KIM ET AL.

Examiner

Chirag G. Shah

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 39-57 and 65 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 58-64 is/are allowed.
- 6) ☒ Claim(s) 39-57 and 65 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed 4/10/05 have been fully considered but they are not persuasive. Applicant primarily argues that claim 39 has been amended to make clear that no processing is performed in the elements that form the conduit other than the protocol and scheme translation. Examiner respectfully addresses the limitation as obvious in view of Zendle and Mahany in view of Toporek. Toporek discloses in figure 1 and respective portions of the specification of where the client device 117 communicates with gateway 111A using a TCP connection (first protocol) that includes LAN network within a building and further discloses that the satellite gateway 111A intercepts a TCP connection from a client and converts data to a satellite protocol for transmission over satellite. This suggests that the modem is the signal conduit unit that functions solely for conversion of protocols. The motivation is to ensure proper protocol format for the accessing the data in the respective network occurs. Applicant amends claim 43 and the reasons for obviousness are set forth in this action, the non-final action combined the rejection of claims 39 with 43 because the limitations in the claims appeared similar.

Based on Applicants argument regarding claims 58 and 63, Examiner deems the claims as patentable.

2. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

Art Unit: 2616

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

### ***Claim Objections***

The amendment filed on 4/10/05 does not comply with the MPEP 707.07(i), each pending claim should be mentioned by number, and its treatment or status given. Claims 1-38 does not include status. Appropriate corrections required.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 39-57 rejected under 35 U.S.C. 103(a) as being unpatentable over Zendle et al. (U.S. Patent No. 6,628,627) in view of Mahany et al. (U.S. Patent No. 5,949,776) and further in view of Toporek et al. (U.S. Patent No. 6,654,344).

Referring to claims 39, Zendle et al discloses in figures 2, 4 and 5 and respective portions of the specification of a system comprising: an integrator 420 (computer controlled radio system)

Art Unit: 2616

including a broadband interface unit 505 coupled to a fixed wireless broadband access means (418), for interacting, via a broadband wireless channel (channel 1 or 2 as in figure 2), with a site that is remote (412) from building that houses said fixed wireless broadband access means (414), a local area interface unit (507) for interacting with a wireless local area network (512) within said building, and a modulator/demodulator (modem 506) interposed between said broadband interface unit (505) and said local area interface unit 507 (control LAN with the computer interface taking the form of a standard I/O interface like PCMCIA for WLAN); and a user device (peripheral devices 434 or 512) adapted to communicate with said site via said local area network. Zendle fails to explicitly disclose that the user device is adapted to communicate with the site via LAN and the integrator, or via other than said local area network. Mahany discloses in claim 1 and abstract and respective portion of the specification of a communications network comprising a first wireless network and a second wireless network independently operable from the first wireless network; an access point device operable on the first wireless network as may be applied to (control LAN with the computer interface taking the form of a standard I/O interface like PCMCIA for use in WLAN); a first wireless device selectively communicating with the access point device on the first wireless network; a second wireless device operable on the second wireless network to communicate with the first wireless device. Therefore, it would have been obvious to one of ordinary skill in the art to modify the teachings of Zendle to incorporate the teachings including a device to communicate with WLAN and a second wireless network independently as taught by Mahany in order to maintain connectivity and functionality to devices on multiple networks which have different operating parameters while reducing delays and expense with respect to bandwidth limitation. Zendle in view of Mahany fails to disclose a

Art Unit: 2616

first transmission and reception scheme and protocol that is different from the second transmission and reception schema and protocol. Toporek discloses in figure 1 and respective portions of the specification of where the client device 117 communicates with gateway 111A using a TCP connection (first protocol) that includes LAN network within a building and further discloses that the satellite gateway 111A intercepts a TCP connection from a client and converts data to a satellite protocol for transmission over satellite. Thus, the first transmission and reception scheme uses the XTP protocol for broadband wireless channel transmission, while the second transmission and reception scheme utilizes TCP/IP protocol suite. Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to modify the teachings of Zendle in view of Mahany to include the teachings of Toporek employing a second transmission and reception schema and protocol that is different from first protocol in order to provide a controlled flow of information with high speed and quality transmission.

Referring to claim 43, Zendle et al discloses in figures 2, 4 and 5 and respective portions of the specification of a system comprising:

an integrator including a series connection of a broadband interface unit, a modulator, and a local area interface unit [an integrator 420 (computer controlled radio system) including a broadband interface, a modulator/demodulator (modem 506) interposed between said broadband interface unit (505) and said local area interface unit 507 (control LAN with the computer interface taking the form of a standard I/O interface like PCMCIA for WLAN)], where

the broadband interface unit is coupled to a fixed wireless broadband access means, with a site that is remote from a building that houses the fixed wireless broadband access means an integrator 420 (computer controlled radio system) including a broadband interface unit 505

Art Unit: 2616

coupled to a fixed wireless broadband access means (418), for interacting, with a site that is remote (412) from building that houses said fixed wireless broadband access means (414)

Zendle fails to explicitly disclose the local area interface unit interfaces with a wireless local area network within the building by employing a second protocol that is different from the first protocol. Mahany discloses in claim 1 and abstract and respective portion of the specification of a communications network comprising a first wireless network and a second wireless network independently operable from the first wireless network; an access point device operable on the first wireless network as may be applied to (control LAN with the computer interface taking the form of a standard I/O interface like PCMCIA for use in WLAN); a first wireless device selectively communicating with the access point device on the first wireless network; a second wireless device operable on the second wireless network to communicate with the first wireless device. Therefore, it would have been obvious to one of ordinary skill in the art to modify the teachings of Zendle to incorporate the teachings including a device to communicate with WLAN and a second wireless network independently as taught by Mahany in order to maintain connectivity and functionality to devices on multiple networks which have different operating parameters while reducing delays and expense with respect to bandwidth limitation.

Zendle discloses based on col. 8, lines 3-32 that user devices may communicate services using traditional telecommunication including frame relay for point to point office building and office campuses, which suggests bi-passing the integrator or use the emerging broadband multimedia as disclosed in figs. 4-5 which utilize the integrator 420. Thus establishing that a user device adapted to communicate with the site via a first path or a second path, where the first

Art Unit: 2616

path comprises the integrator, and the second path bypasses the integrator. Zendle in view of Mahany fails Zendle a signal conduit unit that performs no processing other than that which is necessary to modify transmission and receiving scheme of the broadband interface unit via the fixed antenna or a satellite dish to a different transmission and receiving scheme of the WLAN, and vice versa.

Toporek discloses in figure 1 and respective portions of the specification of where the client device 117 communicates with gateway 111A using a TCP connection (first protocol) that includes LAN network within a building and further discloses that the satellite gateway 111A intercepts a TCP connection from a client and converts data to a satellite protocol for transmission over satellite. This suggests that the modem is the signal conduit unit that functions solely for conversion of protocols. Thus, the first transmission and reception scheme uses the XTP protocol for broadband wireless channel transmission, while the second transmission and reception scheme utilizes TCP/IP protocol suite. Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to modify the teachings of Zendle to include the teachings of Toporek of including a signal conduit unit such as a modem for modifying the transmission and receiving scheme in order to ensure proper protocol format for the accessing the data in the respective network.

Referring to claims 40 and 41, Zendle discloses based on col. 8, lines 3-32 of further comprising a user device capable of communicating with the site via a first path that includes the local area network and the local area interface unit, by employing the second transmission and reception scheme and protocol, and also capable of communicating with the site via a second path that includes other than the local area network and the local area interface unit (see col. 8,



Art Unit: 2616

lines 3-32 that user devices may communicate services using traditional telecommunication including frame relay for point to point office building and office campuses, which suggests bypassing the integrator or use the emerging broadband multimedia as disclosed in figs. 4-5 which utilize the integrator 420. Thus establishing that a user device adapted to communicate with the site via a first path or a second path, where the first path comprises the integrator, and the second path bypasses the integrator).

Referring to claims 42 and 46, Toporek discloses in figure 1 and respective portions of the specification where said user device system operates pursuant to said second transmission and reception schema and protocol when it employs the first path, and operates pursuant to said first transmission and reception schema and protocol when it employs the second path.

Referring to claim 44, Toporek discloses in figure 1 and in col6, lines 6-31 of further comprising a cable modem 119 connected to a cable that includes a wireless local area radio unit that is adapted to operate in accord with said second protocol.

Referring to claim 45, Toporek discloses in figure 1, abstract and respective portions of the specification where said second path either couples said user device (117) directly to said site, employing said first protocol (XTP), or couples said user device to said site via said cable modem, employing said second protocol (TCP/IP).

Referring to claims 47-50, Zendle fails to disclose: the system where a determination is made as to whether said user device ought to be conditioned to communicate over said other than said local area network, or via said local area network and said integrator, based on transmission quality based on signal strength or signal interference level or both at said user device; the system where said user device periodically makes said determination; the system where the user

Art Unit: 2616

device makes said determination or in response to a signal applied to said user device; the system where the device is conditioned to communicate said is directly via said wireless broadband channel when it is conditioned to communicate over said other than said local area network.

Mahany discloses in claim 1 and in the abstract and respective portion of the specification of a communications network comprising a first wireless network and a second wireless network independently operable from the first wireless network; an access point device operable on the first wireless network as may be applied to (control LAN with the computer interface taking the form of a standard I/O interface like PCMCIA for WLAN); a first wireless device selectively communicating with the access point device on the first wireless network; a second wireless device operable on the second wireless network to communicate with the first wireless device.

Furthermore, the first wireless device selectively communicates with the second wireless device on the second wireless network after communication an indication of unavailability on the first wireless network to the access point device (based on no signal strength, the communication takes place with a second network which is the other-than LAN network). Therefore, it would have been obvious to one of ordinary skill in the art to modify the teachings of Zendle to incorporate the teachings including a device to communicate with WLAN and a second wireless network independently as taught by Mahany in order to maintain connectivity and functionality to devices on multiple networks which have different operating parameters while reducing delays and expense with respect to bandwidth limitation.

Referring to claim 51-55 and 57, Zendle et al discloses in figures 2, 4 and 5 and respective portions of the specification of a system comprising: an integrator 420 (computer controlled radio system) including a broadband interface unit 505 coupled to a fixed wireless

Art Unit: 2616

broadband access means (418), for interacting, via a broadband wireless channel (channel 1 or 2 as in figure 2), with a site that is remote (412) from building that houses said fixed wireless broadband access means (414), a local area interface unit (507) for interacting with a wireless local area network (512) within said building, and a modulator/demodulator (modem 506) interposed between said broadband interface unit (505) and said local area interface unit 507 (control LAN with the computer interface taking the form of a standard I/O interface like PCMCIA for WLAN); and a user device (peripheral devices 434 or 512) adapted to communicate with said site via said local area network. Zendle fails to disclose the system where said user device makes said determination in response to a signal from said integrator; where said device provides to said integrator results of said determination; where said user device provides to said integrator results of said determination in response to an interrogation signal issued by said integrator; where said integrator participates in decision whether said user device communicates to said local area network and said integrator, or via said other than said local area network; where said user device provides to said integrator results of said determination each, time said user device performs said determination; where said user device decides whether said user device communicates to said wireless broadband channel via the integrator. Mahany discloses in claim figure 45 and respective portions of the specification, where base station 4517 acts as a direct access point to the backbone LAN 4501. The access point may act as an integrator since the access point device is operable on the first wireless network as in claim 1. Mahany further implies in claims 1 and 9 that interrogation signal is issued by the Access Point to the first wireless device indicating its availability (signal strength). The Access Point (functioning as an integrator) participates in decision; whether the first

Art Unit: 2616

wireless device should communicate to the LAN and the integrator or via other than LAN based on an indication of its availability. The wireless device provides the integrator results of determination each time based on an active communication connection or disconnection and switching communication to second wireless link as claim. Therefore, it would have been obvious to include the teachings of Mahany's invention into Zendle's invention in order to reduce latency and increase efficiency.

Referring to claim 56, Zendle discloses in figure 4, where said fixed wireless broadband access means is a fixed antenna or a satellite dish 418 mounted in a home or business as claim.

5. Claim 65 rejected under 35 U.S.C. 103(a) as being unpatentable over Zendle in view of Toporek et al. (U.S. Patent No. 6,654,344).

Referring to claim 65, Zendle et al discloses in figures 2, 4 and 5 and respective portions of the specification of a system comprising:

a broadband interface unit (broadband interface unit 505) adapted to a fixed antenna or a satellite dish (antenna 518, see fig. 5), for interacting via a broadband wireless channel (channel 1 or 2 as in figure 2) employing a broadband wireless communication scheme with a site that is remote from a building that houses the fixed antenna or a satellite dish (see fig. 4, where communication with remote site takes place);

a local area interface unit for interacting with a wireless local area network (WLAN) within the building in accord with a WLAN communication scheme [local area interface unit 507 control LAN with the computer interface taking the form of a standard I/O interface like

Art Unit: 2616

PCMCIA for WLAN; and a user device, peripheral devices 434 or 512 adapted to communicate with said site via said local area network.]; and

Zendle a signal conduit unit that performs no processing other than that which is necessary to modify transmission and receiving scheme of the broadband interface unit via the fixed antenna or a satellite dish to a different transmission and receiving scheme of the WLAN, and vice versa.

Toporek discloses in figure 1 and respective portions of the specification of where the client device 117 communicates with gateway 111A using a TCP connection (first protocol) that includes LAN network within a building and further discloses that the satellite gateway 111A intercepts a TCP connection from a client and converts data to a satellite protocol for transmission over satellite. This suggests that the modem is the signal conduit unit that functions solely for conversion of protocols. Thus, the first transmission and reception scheme uses the XTP protocol for broadband wireless channel transmission, while the second transmission and reception scheme utilizes TCP/IP protocol suite. Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to modify the teachings of Zendle to include the teachings of Toporek of including a signal conduit unit such as a modem for modifying the transmission and receiving scheme in order to ensure proper protocol format for the accessing the data in the respective network.

***Allowable Subject Matter***

6. Claims 58-64 allowed.

Art Unit: 2616

***Conclusion***

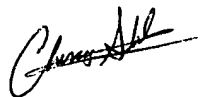
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chirag G. Shah whose telephone number is 571-272-3144. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on 571-272-7682. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

cgs

December 18, 2006



Chirag G. Shah  
Primary Examiner, 2616

CHIRAG G. SHAH  
PRIMARY PATENT EXAMINER